



**NOAA Satellites and Information**

*National Environmental Satellite, Data, and Information Service*



## **National Coastal Data Development Center**

# **Harmful Algal Blooms Observing System (HABSOS)**

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**228-688-3450**

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**10 June 2003**



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# Organizational Structure

Department of Commerce



National Oceanic and Atmospheric Administration



National Environmental Satellite, Data, and Information Service



National Oceanographic Data Center



National Coastal Data Development Center



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## NCDDC MISSION

*The National Coastal Data Development Center has the mission to simplify and provide the Nation with expanded, timely access to the best available coastal environmental data.*



## **National Coastal Data Development Center Is Involved . . .**

- Building partnerships
- Providing expanded Internet capabilities and services
- Improving identification of coastal data
- Expanding data access and retrieval
- Making coastal data more available





## Partner Development

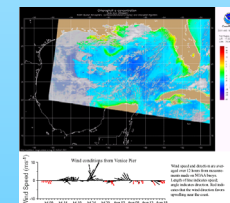
*Develop inter-agency relationships to identify opportunities*

- Enable coastal data sharing between data holders and users
  - Create/harvest metadata
  - Develop access to distributed data sources via gateways
  - Provide training and assistance
- Create tools & products that integrate partner's data
  - GIS tools
  - Consolidated, more user-friendly data sets



## GOM HAB Programs/Projects - Recent History-

- 1989: EPA GMP Public Health Focus Team
- 1997: U.S. Interagency ECOHAB funds  
Regional ECOHAB-FL program
- 1998: Texas Harmful Algal Bloom Strategy (TEXHABS)
- 1998: USEPA/GED, NRL, NOAA/NOS collaboration  
to develop SeaWiFS application to HABS
- 1999: NOAA Coastwatch issues first HAB bulletin
- 2000: HABSOS Workshop – Pensacola Beach, FL
- 2001: HABSOS Pilot Project initiated
- 2002: Gulf of Mexico States Accord (St. Petersburg, FL)
- 2003: HABSOS Case Study Final Report (in prep)
- 2003: Binational Collaboration Workshop on Red Tide  
Programs (New Orleans, LA)





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## **Harmful Algal BloomS Observing System (HABSOS)**

Multi-agency initiative to develop a virtual HAB communication and decision support system for GOM state resource managers

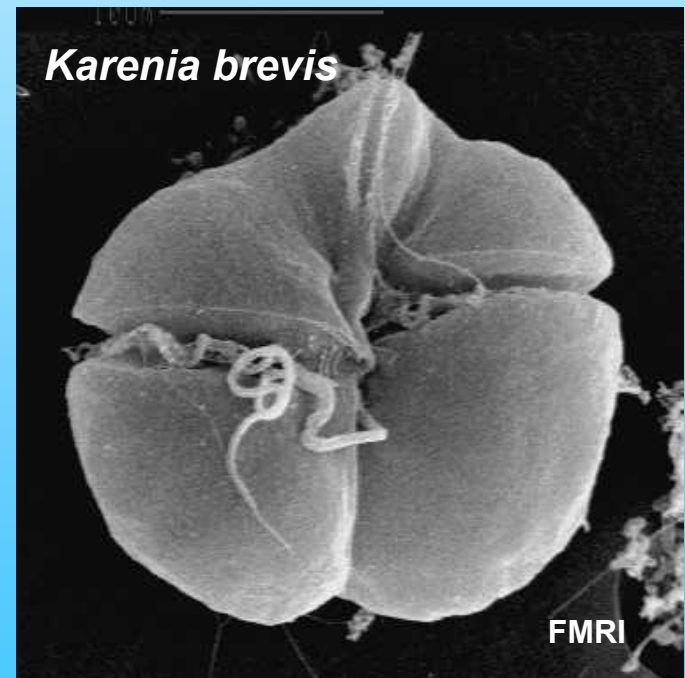
User-defined

HABSOS Goals:

Detection/early warning

Forecasting

Prediction





## **Voluntary . . . Unprecedented level of cooperation**

### **Partner Organizations**

- USEPA/GMP
- NAML/LABNET
- NOAA – NCDDC, NOS, Coastwatch
- US-CGOOS
- CNMOC
- Alabama (DISL, ADCNR, ADPH, ADEM)
- Florida (FDACS, FFWCC/FRMI)
- Louisiana (LDEQ, LDHH, LUMCON, LSU)
- Mississippi (MDMR, MDEQ, USM)
- Texas (UTMSI, TDH, TPWD)

### **Other Contributors**

- NAVOCEANO
- USFDA
- USCOE
- NRL
- SAML/CASTNET
- U. Colorado
- Texas A&M University
- USF/JSU
- Marathon Oil/CASE
- Planning Systems Inc.
- Neptune Sciences Inc.
- Anteon Corp.
- Veridian



# HABSOS User Requirements

- State managers make decisions regarding
  - Public health issues (fish/shellfish consumption, shellfish bed closures, beach advisories)
  - Aquaculture issues (sites, disease, mortality)
  - Economic issues (tourism, beach clean-up, monitoring, fisheries)
  - Dissemination of information to public
- State managers need, want and prefer synthesized data and information
- 24 h advance notice is high priority
  - An alert that an event is in progress
  - A forecast of where/when (movement, landfall)
  - An alert of conditions favorable for initiation



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## NCDCC Approach

- Connecting Partners through Interactive Web Collaboration
- Increasing Public Access to Coastal Data through Metadata Tools
- Connecting Users to Data Through Gateways
- Enhancing Coastal Data Viewing and Analysis

habsos - Microsoft Internet Explorer provided by MSN

Address: http://localhost:8080/habsos

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History

Links: Customize Links Free Hotmail WINDOWS Microsoft Picture It! Home Page Internet Start Windows Update Microsoft

Customize Search Sign in My Yahoo! News Yahoo! Yahoo! Mail Finance

# HABSOS

Friday 23 August 2002 | 01:52 PM CDT Good Afternoon CMASSON

Participants

NOAA National Coastal Data Development Center

A data and information portal to Harmful Algal Blooms

### Home

In "The State of the Nation's Ecosystems", the Heinz Center identified harmful algal blooms (HABs) as one of the core indicators to the health of the nation's ecosystems. Alarming, the frequency, extent, and severity of HAB events appear to be increasing. Although these occurrences can have significant economic and ecological effects, there are no consistent and comprehensive national data to validate this concern.

The Harmful Algal Blooms Observing System (HABSOS) pilot project is a proof-of-concept demonstration of an integrated information management and communication system for managing HAB data, events, and effects. The HABSOS pilot project is initially focused on the Gulf of Mexico but will ultimately expand throughout the coastal U.S.

HABSOS	Current Events
Mission FAQ's Privacy	1. Xth International Conference on Harmful Algae, Oct 21-25, 2002, St. Petersburg, FL

Home >>

- What's the Problem?
- General Interest
- Teachers
- Kids
- Press Kit
- Data/Applications
- Management
- Related Links
- Feedback

Go

Search

Done Local intranet

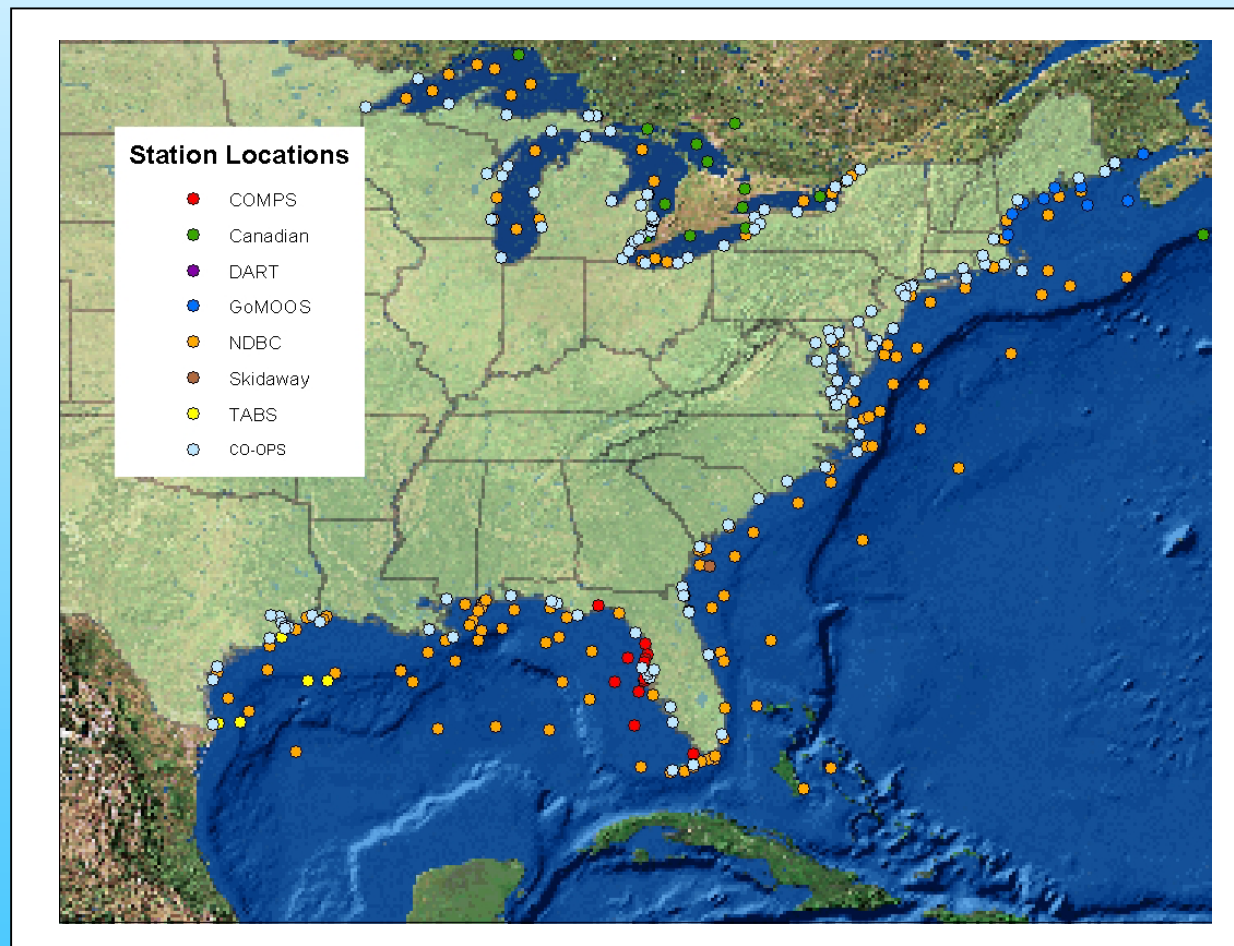




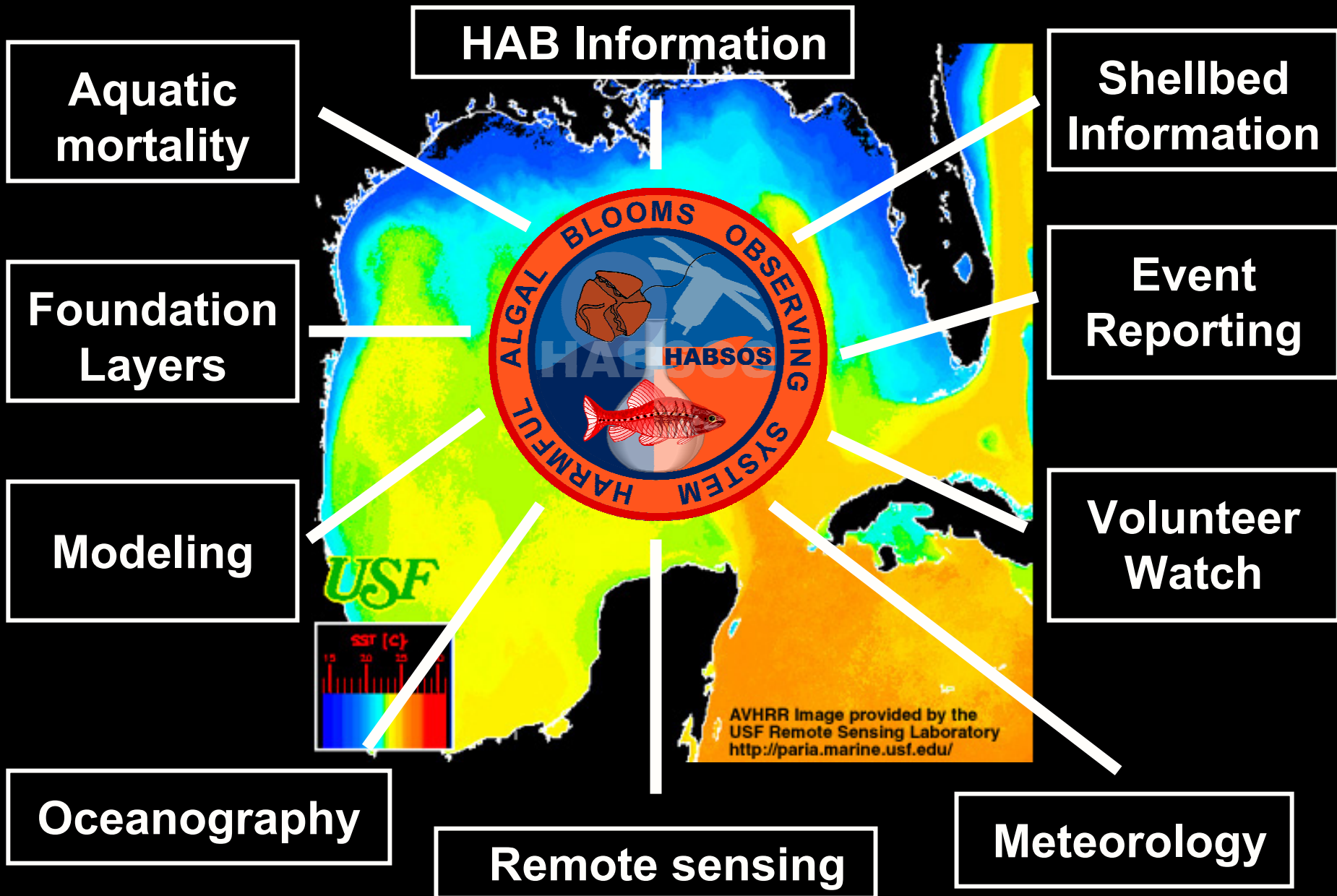
## Integrated Ocean Observing System (IOOS)

Providing the IT framework and connectivity for integration of Coastal Observing Systems

HABSOS is being considered as a major Gulf component of IOOS



# HABSOS Data Needs







File Edit View Favorites Tools Help

← Back → [X] [Home] [Search] [Favorites] [History] [Print] [W] [List] [Help] [User]

Address http://sandsollar/website/habsos\_gom/viewer.htm

Go



# HABSOS - Harmful Algal Blooms Observing System

[Credits](#)[Help](#)

Visible Active

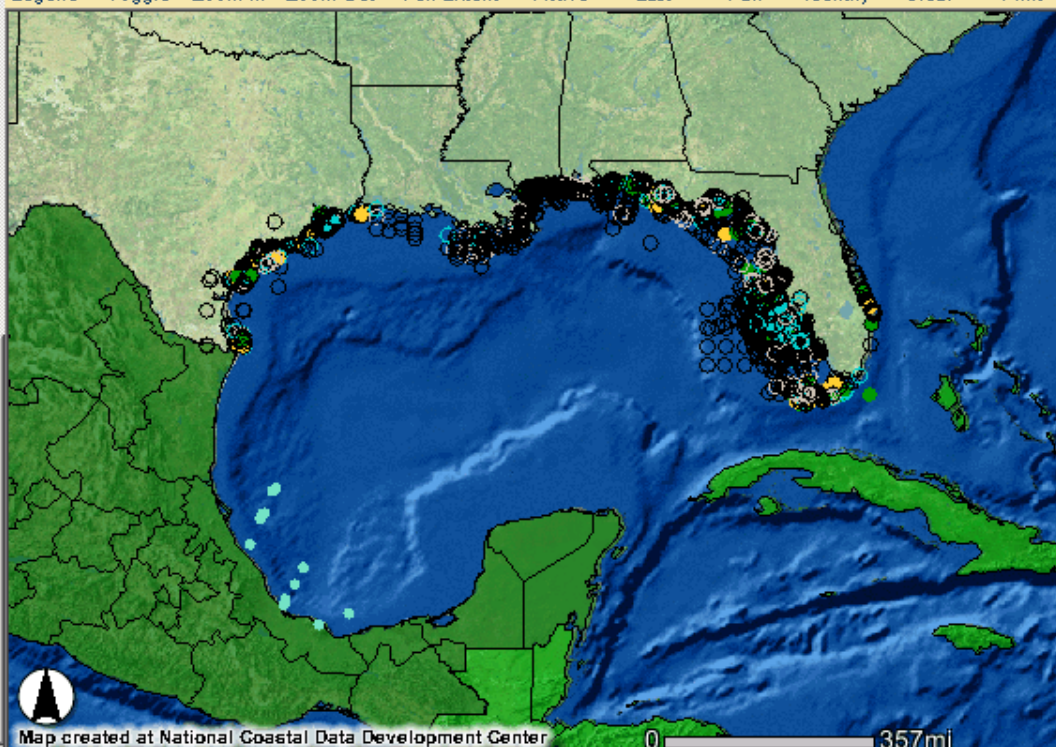
## GOM MAP DATA

Visible Active

- ☒ ☐ GOM Cell Counts
- ☒ ☐ Mexico Toxicity Data
- ☐ ☐ US Cities
- ☐ ☐ Mexico Cities
- ☐ ☐ Water Gauges
- ☐ ☐ NDBC Buoys
- ☐ ☐ COOPS
- ☐ ☐ Metar Stations
- ☐ ☐ GOM Bathymetry
- ☐ ☐ US Rivers
- ☐ ☐ Mexico Rivers
- ☐ ☐ US Counties
- ☒ ☐ US States
- ☒ ☐ Mexico States
- ☒ ☐ North America
- ☒ ☐ Relief Image

[Refresh](#)

Legend Toggle Zoom In Zoom Out Full Extent Active Last Pan Identify Clear Print



Map created at National Coastal Data Development Center

U.S.  
States

-All States-

[Go](#)Mexican  
States

-All States-

[Go](#)

## Query Functions

Begin Year

1996

End Year

2001

Begin Month

January

End Month

December

Begin Day

1

End Day

31

Salinity (ppt)

&gt;=

Temperature (C)

&gt;=

[Submit](#)

## Imagery

[Add it](#)[Delete it](#)☐ SST☒ Chlorophyll



# HABSOS - Harmful Algal Blooms Observing System

[Credits](#)[Help](#)

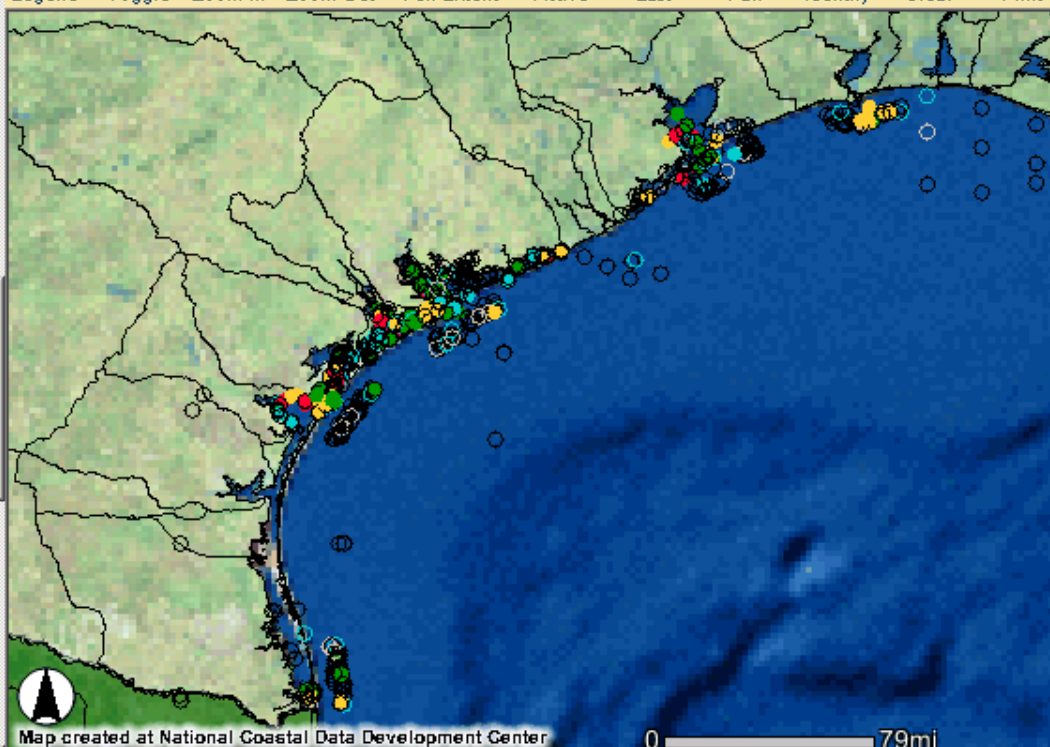
## TEXAS

Visible Active

- ☐ ☐ TX Marinas
- ☐ ☐ TX Hard Substrate Reefs
- ☐ ☐ TX Beach Access Points
- ☐ ☐ TX Aquaculture Facilities
- ☐ ☐ TX Place Names
- ☐ ☐ Texas Artificial Reefs
- ☐ ☐ TX Three Marine League Line
- ☐ ☐ TX Coastal Hydrography
- ☐ ☐ TX Detailed Hydrography
- ☐ ☐ Major Rivers
- ☐ ☐ Private Oyster Leases
- ☐ ☐ San Antonio Bay System Oyster Reefs
- ☐ ☐ Galveston Bay System Oyster Reefs
- ☐ ☐ Coastal Hydrography

[Refresh](#)

Legend Toggle Zoom In Zoom Out Full Extent Active Last Pan Identify Clear Print



Map created at National Coastal Data Development Center

U.S. States

Texas

[Go](#)

Mexican States

-All States-

[Go](#)

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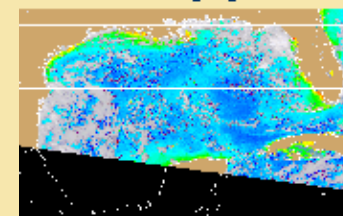
&gt;=

Temperature (C)

&gt;=

[Submit](#)

## Imagery

[Add it](#)[Delete it](#)☐ SST☒ Chlorophyll[|<<](#) [<](#) Date [>](#) [>>|](#)



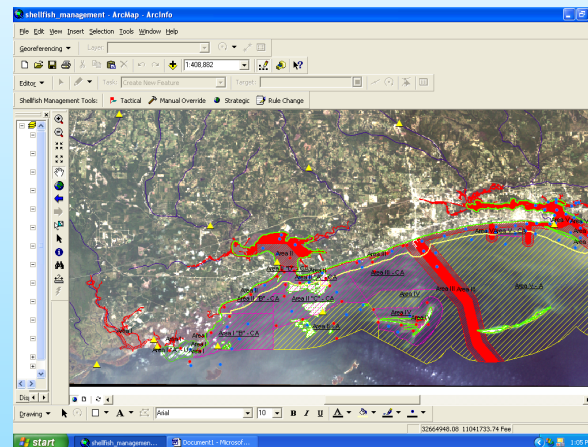
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HABSOS is developing on-line data management tools and/or leveraging existing applications

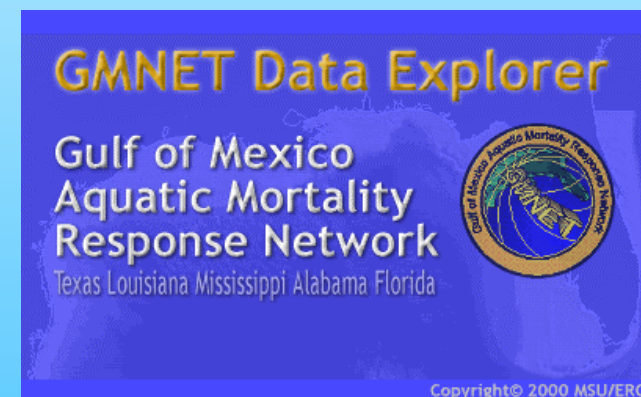
JSU  
NCDDC



NOAA NCDDC



NOAA NOS



EPA/FMRI



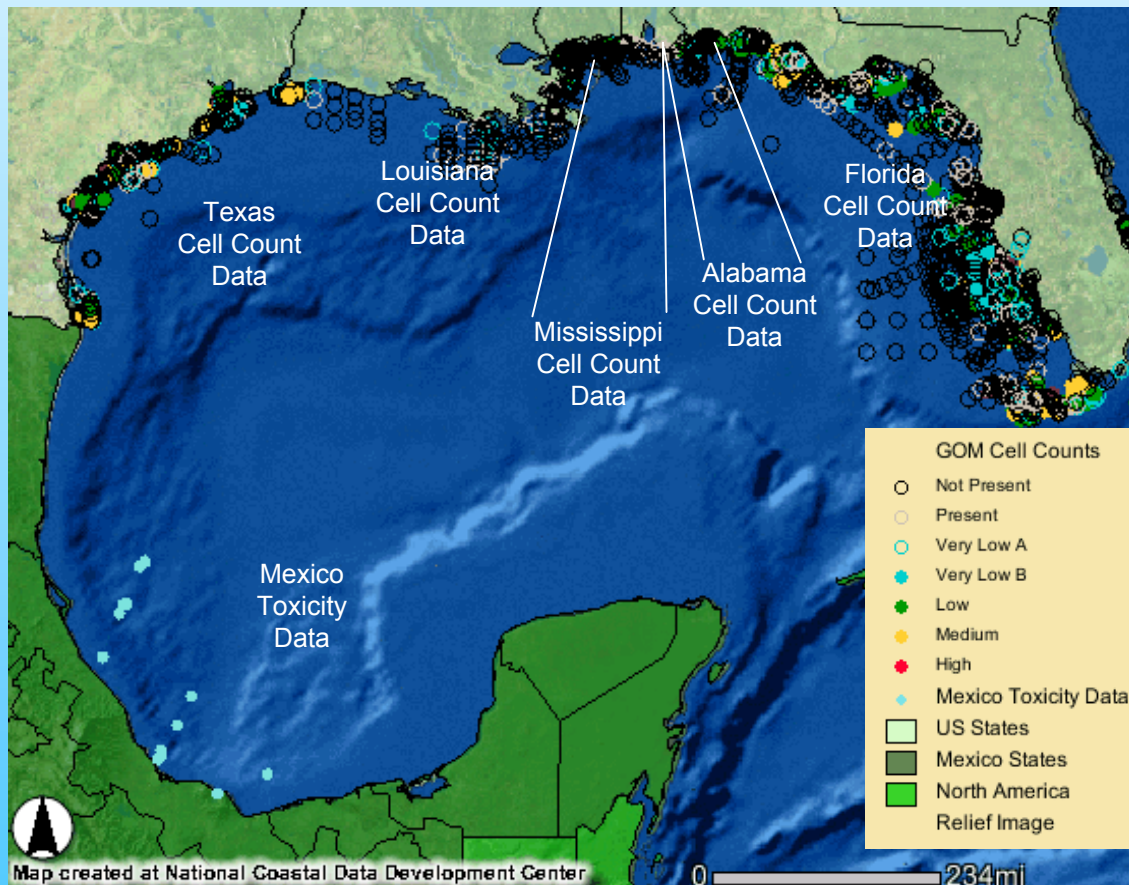


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## HABSOS -- New International Partnership



Mexico Data:

Dr. Mauro Loyo Varela,  
Health Secretary and  
Director of Health  
Services of Veracruz

Dr. Jorge Nicolás Chantiri  
Pérez, Director of  
Sanitary Regulation and  
Protection